

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/630,846

DATE: 10/17/2001
TIME: 15:48:38

Input Set : A:\Rpi260.app
Output Set: N:\CRF3\10172001\I630846.raw

#7
KAL
10-22-01

3 <110> APPLICANT: Thompson, James D.
5 <120> TITLE OF INVENTION: IMPROVED POLYMERASE III-BASED EXPRESSION OF THERAPEUTIC
6 RNAS
8 <130> FILE REFERENCE: MBHB00-919-D
10 <140> CURRENT APPLICATION NUMBER: 09/630,846
11 <141> CURRENT FILING DATE: 2000-08-02
13 <150> PRIOR APPLICATION NUMBER: 08/512,861
14 <151> PRIOR FILING DATE: 1995-08-07
16 <150> PRIOR APPLICATION NUMBER: 08/293,520
17 <151> PRIOR FILING DATE: 1994-08-19
19 <150> PRIOR APPLICATION NUMBER: 08/337,608
20 <151> PRIOR FILING DATE: 1994-11-10
22 <160> NUMBER OF SEQ ID NOS: 22
24 <170> SOFTWARE: PatentIn Ver. 2.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 88
28 <212> TYPE: RNA
29 <213> ORGANISM: Homo sapiens
31 <220> FEATURE:
32 <221> NAME/KEY: misc_feature
33 <222> LOCATION: (83)
34 <223> OTHER INFORMATION: n represents ribothymidine.
36 <220> FEATURE:
37 <221> NAME/KEY: misc_feature
38 <222> LOCATION: (86)..(88)
39 <223> OTHER INFORMATION: all n's represent ribothymidine.
41 <400> SEQUENCE: 1
42 ggcagaacag cagaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaug 60
W--> 43 aucgaaacca uccucugcua ggnccnnn 88
45 <210> SEQ ID NO: 2
46 <211> LENGTH: 70
47 <212> TYPE: RNA
48 <213> ORGANISM: Artificial Sequence
50 <220> FEATURE:
51 <223> OTHER INFORMATION: Description of Artificial Sequence: a truncated
52 version of tRNA.
54 <400> SEQUENCE: 2
55 ggcagaacca gcagaguggc gcagcggaag cgugcugggc ccauaaccca gaggucgaug 60
56 gaucgaaacc 70
58 <210> SEQ ID NO: 3
59 <211> LENGTH: 108
60 <212> TYPE: RNA
61 <213> ORGANISM: Artificial Sequence
63 <220> FEATURE:
64 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 tRNA
65 Chimera (S35).
67 <400> SEQUENCE: 3

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68 ggcagaacag cagaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
69 aucgaaaccc cggaucguac cgcggggauc cacucugcug uucuguuu 108
71 <210> SEQ ID NO: 4
72 <211> LENGTH: 146
73 <212> TYPE: RNA
74 <213> ORGANISM: Artificial Sequence
76 <220> FEATURE:
77 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 Ribozyme
78 Chimera (HHIS35).
80 <400> SEQUENCE: 4
81 ggcagaacag cagaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
82 aucgaaaccc cggaucguac cgcgggcacia cacugaugag gaccgaaagg uccgaaacgg 120
83 gcaggaucca cucugcuguu cuguuu 146
85 <210> SEQ ID NO: 5
86 <211> LENGTH: 133
87 <212> TYPE: RNA
88 <213> ORGANISM: Artificial Sequence
90 <220> FEATURE:
91 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 Plus tRNA
92 Chimera (S35 Plus).
94 <400> SEQUENCE: 5
95 ggcagaacag cagaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
96 aucgaaaccc cggaucguac cgcggggauc cuaacgaucc ggggugucga uccaucacuc 120
97 ugcuguucug uuu 133
99 <210> SEQ ID NO: 6
100 <211> LENGTH: 171
101 <212> TYPE: RNA
102 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 Plus
106 Ribozyme Chimera (HHIS35 Plus).
108 <400> SEQUENCE: 6
109 ggcagaacag cagaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
110 aucgaaaccc cggaucguac cgcggcacia cacugaugag gaccgaaagg uccgaaacgg 120
111 gcaggauccu aacgaucggg ggugucgauc caucacucug cuguucuguu u 171
113 <210> SEQ ID NO: 7
114 <211> LENGTH: 11
115 <212> TYPE: RNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Description of Artificial Sequence: A BOX
120 consensus sequence.
122 <220> FEATURE:
123 <221> NAME/KEY: misc_feature
124 <222> LOCATION: (5)..(6)
125 <223> OTHER INFORMATION: each n represents any one of a, c, g, or u.
127 <400> SEQUENCE: 7
W--> 128 urgcnmagyg g 11
130 <210> SEQ ID NO: 8

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131 <211> LENGTH: 11
132 <212> TYPE: RNA
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: Description of Artificial Sequence: B BOX
137     consensus sequence.
139 <220> FEATURE:
140 <221> NAME/KEY: misc_feature
141 <222> LOCATION: (8)
142 <223> OTHER INFORMATION: n represents any one of a, c, g, or u.
144 <400> SEQUENCE: 8
W--> 145 gguucganuc c 11
147 <210> SEQ ID NO: 9
148 <211> LENGTH: 129
149 <212> TYPE: RNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Description of Artificial Sequence: 5T tRNA
154     Chimera (5T).
156 <400> SEQUENCE: 9
157 ggcagaacag cagaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
158 aucgaaaacca uccucugcug uucugccgcg gcgaaagccg caaacacaca aaaaccccca 120
159 aaccccuuu 129
161 <210> SEQ ID NO: 10
162 <211> LENGTH: 167
163 <212> TYPE: RNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Description of Artificial Sequence: 5T Ribozyme
168     Chimera (HHI5T).
170 <400> SEQUENCE: 10
171 ggcagaacag cagaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
172 aucgaaaacca uccucugcug uucugccgcg gcgaaagccg caaacacaac acugaugagg 120
173 accgaaaggu ccgaaacggg cacacacaaa aacggcgaaa gccguuu 167
175 <210> SEQ ID NO: 11
176 <211> LENGTH: 112
177 <212> TYPE: RNA
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Description of Artificial Sequence: TRZ-A tRNA
182     Chimera.
184 <400> SEQUENCE: 11
185 ggcagaacag ucgaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
186 aucgaacacu gcgccacucc ugaugagccg caaaggcgau acuguucugu uu 112
188 <210> SEQ ID NO: 12
189 <211> LENGTH: 112
190 <212> TYPE: RNA
191 <213> ORGANISM: Artificial Sequence
193 <220> FEATURE:

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194 <223> OTHER INFORMATION: Description of Artificial Sequence: TRZ-B tRNA
195     Chimera.
197 <400> SEQUENCE: 12
198 ggcagaacag ucgaguggcg cagcggaagc gugcugggcc caraacccag aggucgaugg 60
199 aucgaacacu gcgccacuca aaaaaagccg caaaggcgau acuguucugu uu      112
201 <210> SEQ ID NO: 13
202 <211> LENGTH: 148
203 <212> TYPE: RNA
204 <213> ORGANISM: Artificial Sequence
206 <220> FEATURE:
207 <223> OTHER INFORMATION: Description of Artificial Sequence: HHITRZ-A
208     Ribozyme Chimera.
210 <400> SEQUENCE: 13
211 ggcagaacag ucgaguggcg cagcggaagc gugcugggcc cauaacccag aggucgaugg 60
212 aucgaacacu gcgccacucc ugaugagccg cacacaacac ugaugagccg aaaggcgaaa 120
213 cgggcacaca ggcgauacug uucuguuu      148
215 <210> SEQ ID NO: 14
216 <211> LENGTH: 169
217 <212> TYPE: RNA
218 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
221 <223> OTHER INFORMATION: Description of Artificial Sequence: HPITRZ-A
222     Ribozyme Chimera.
224 <400> SEQUENCE: 14
225 ggcagaacag ucgaguggcg cagcggaagc gugcuugggc ccauaaccca gaggucgaug 60
226 gaucgaacac ugcgccacuc cugaugagcc gcacacaaca agaaggcaca accagagaaa 120
227 cacaggcgaa agccugguac auuaccuggu aggcgauacu guucuguuu      169
229 <210> SEQ ID NO: 15
230 <211> LENGTH: 64
231 <212> TYPE: RNA
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: Description of Artificial Sequence: a U6-S35
236     chimera.
238 <220> FEATURE:
239 <221> NAME/KEY: unsure
240 <222> LOCATION: (1)..(64)
241 <223> OTHER INFORMATION: all n's represent ribothymidine.
243 <400> SEQUENCE: 15
W--> 244 gggcacncga anncaagcac aaacaaaaan aaaccaccaa acaaagcnng agnncgagng 60
W--> 245 nnnn      64
247 <210> SEQ ID NO: 16
248 <211> LENGTH: 104
249 <212> TYPE: RNA
250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: Description of Artificial Sequence: a U6-S35
254     ribozyme chimera containing a hammerhead ribozyme
255     targeted to site I (HHI).

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257 <220> FEATURE:
258 <221> NAME/KEY: unsure
259 <222> LOCATION: (1)..(104)
260 <223> OTHER INFORMATION: all n's represent ribothymidine.
262 <400> SEQUENCE: 16
W--> 263 gggcacncga anncaagcac aaacaaaaaa cacaacacng angagccgaa aggcgaaacg 60
W--> 264 ggcacacana aaaccaccaa acaaaagcnn agnncgagng nnnn 104
266 <210> SEQ ID NO: 17
267 <211> LENGTH: 102
268 <212> TYPE: RNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Description of Artificial Sequence: a
273     U6-S35-ribozyme chimera containing a hammerhead
274     ribozyme targeted to site II (HHII).
276 <400> SEQUENCE: 17
277 gggcacucga auucaagcac aaacacaaca auuucuuccu gaugagccga aaggcgaaaa 60
278 aaccgaacca cacaacaaac aaagcuugag uucgaguguu uu 102
280 <210> SEQ ID NO: 18
281 <211> LENGTH: 161
282 <212> TYPE: RNA
283 <213> ORGANISM: Adenovirus VA1 RNA.
285 <400> SEQUENCE: 18
286 uuucccgggc acucuuccgu ggucuggugg auaaaauucgc aaggguauca uggcggacga 60
287 ccggggguucg aaccccgga cccggccguc cgccgugauc caugcgguua ccgcccgcgu 120
288 gucgaacca ggugugcgac gucagacaac gggggagcgc u 161
290 <210> SEQ ID NO: 19
291 <211> LENGTH: 175
292 <212> TYPE: RNA
293 <213> ORGANISM: Artificial Sequence
295 <220> FEATURE:
296 <223> OTHER INFORMATION: Description of Artificial Sequence: VA1-S35
297     Chimera.
299 <400> SEQUENCE: 19
300 gggcacucuu ccguggucug guagauaaa ucgcaaggu aucauggcg acgaccggg 60
301 uucgaacccc ggauccggcc guccgcccug auccaugcg uuaccgcga uucaagcgaa 120
302 agcuugaauu cgcgguaacc caggugugcg agcucagaca acgggggagu guuuu 175
304 <210> SEQ ID NO: 20
305 <211> LENGTH: 72
306 <212> TYPE: RNA
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: Description of Artificial Sequence: VA1 Chimera.
312 <400> SEQUENCE: 20
313 gggcaccucu uccguggucu gguagauuaa auucgcaagg guaucauggc ggacgaccgg 60
314 gguucgaacc cc 72
316 <210> SEQ ID NO: 21
317 <211> LENGTH: 26
318 <212> TYPE: DNA

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VERIFICATION SUMMARY

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Input Set : A:\Rpi260.app

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L:43 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16